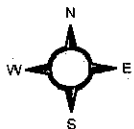
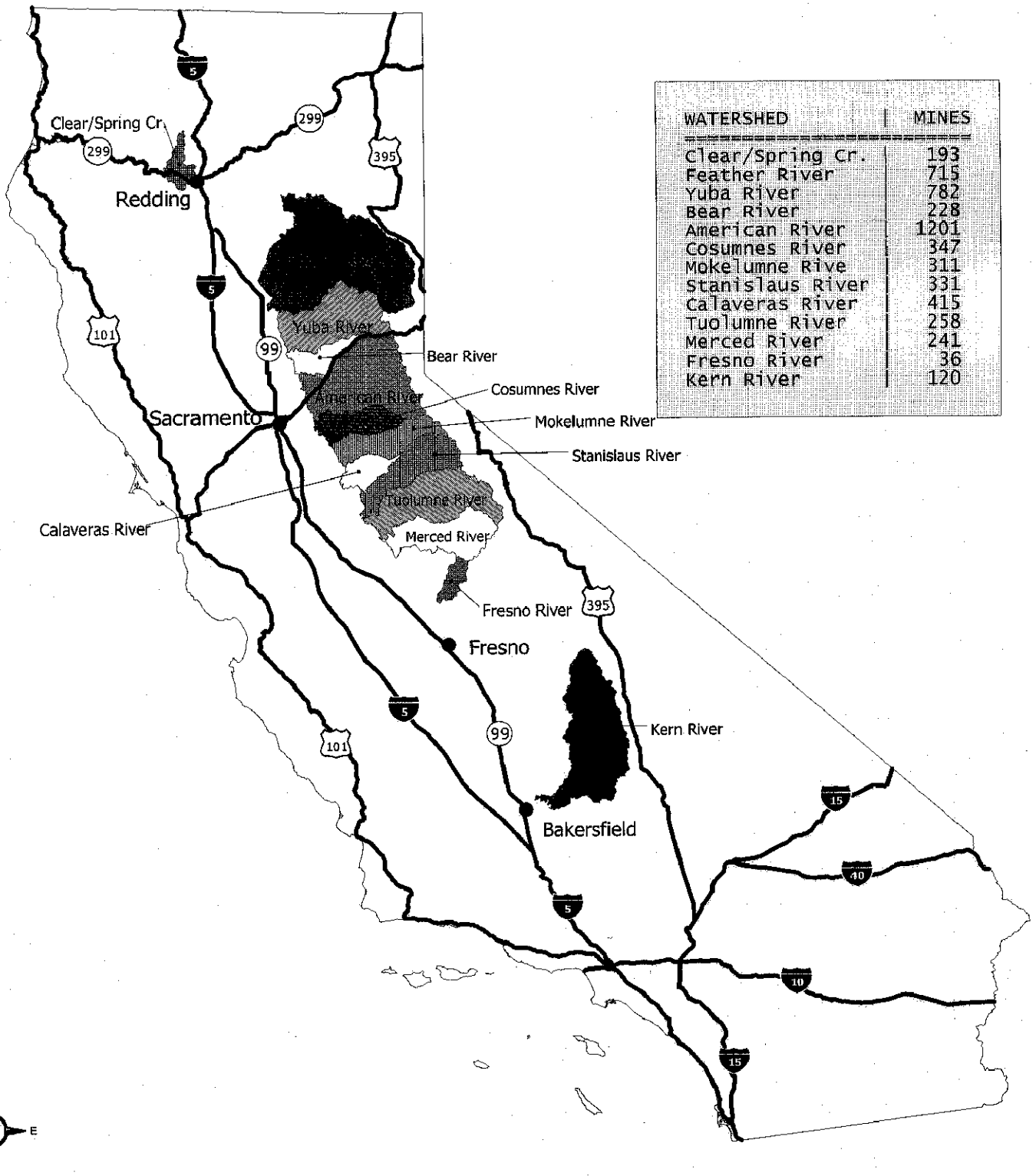


# Attachment 1: CALFED TARGET WATERSHEDS



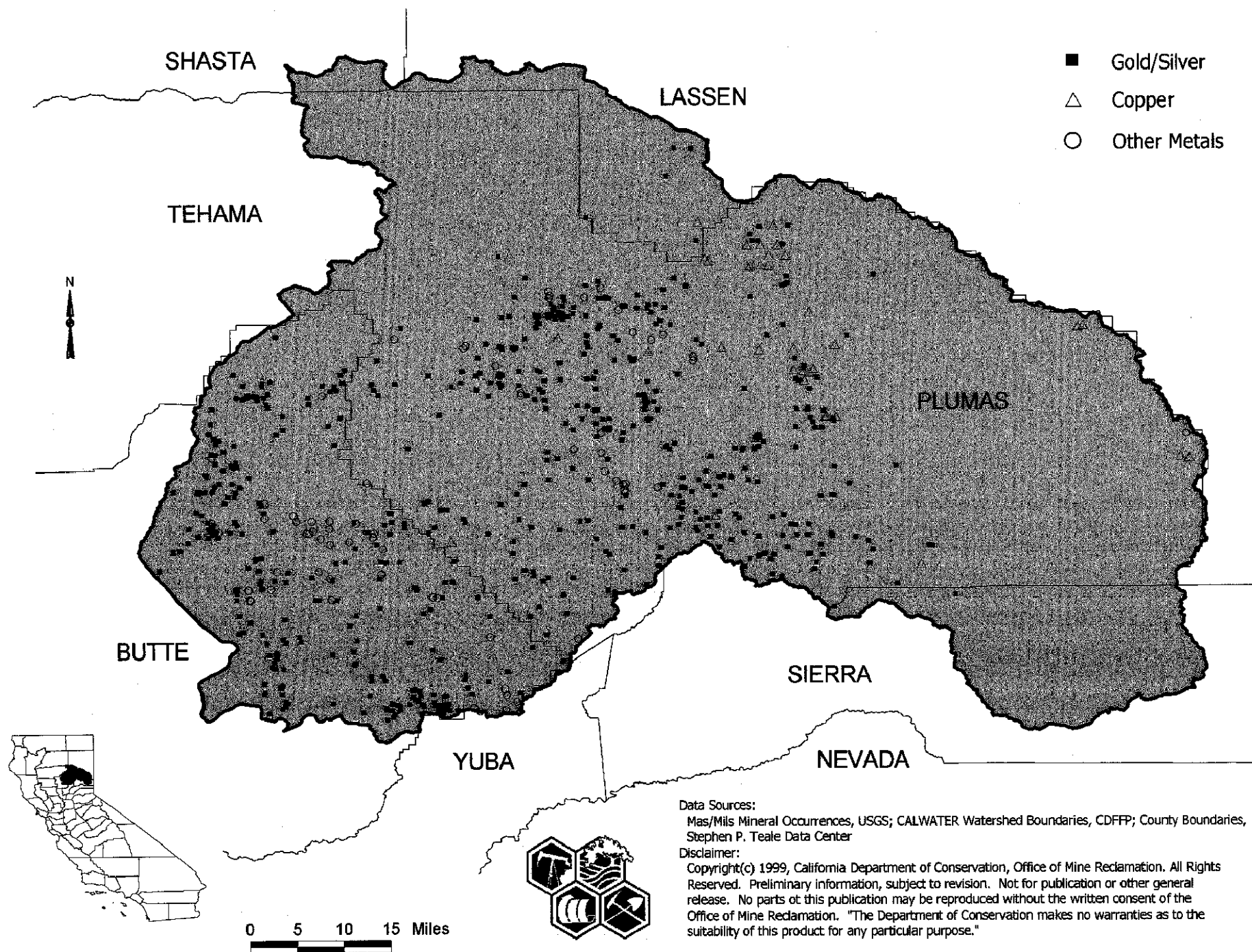
## Data Sources:

Mas/Mills Mineral Occurrences, USGS; CALWATER Watershed Boundaries, CDFFP; Roads, Cities and County Boundaries, Stephen P. Teale Data Center

## Disclaimer:

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# Attachment 2: Metal Mines of the Feather River Watershed



# Attachment 3: Database Forms

AMH Database ver. 0.61a

File Edit View Insert Format Records Tools Window Help

Mine Hub

## Historic and Inactive Mined Land Inventory and Appraisal

State of California, Department of Conservation, Office of Mine Reclamation

OMB No.	2520-01	Data Source	SWRCB	Photo	
Project Name	SWRCB	Mine Not Round	<input type="checkbox"/>	District Name	West Shasta Copper-Mining District
Primary Name	Iron Mountain	Crew Initials	SER	File Date	11/3/1998
Site Description				Last Visited	11/3/1998

The Iron Mountain Mine site is a 4400 acre mining complex in the West Shasta Copper-zinc Mining District, 9 miles north of Redding. Mining first started in 1879 with leaching of the gossan for silver. Mountain Copper Co. Ltd. Of London purchased the site in 1896, and copper mining started in 1897. The copper was smelted on site until 1907, when roasting and smelting activities were moved to Martinez. A 250 tons per day cyanide leaching plant was built in 1929 to recover gold and silver. Copper was produced sporadically. Underground mining ceased in 1956, and the open pit was worked from 1956 to 1962. No mining activities were conducted from 1963 to 1976.

Brick Flat open pit on top of the mountain tends to retain precipitation, which then infiltrates the highly fractured igneous and metamorphic rocks. The ARD eventually discharges through the mine adits or underground seeps. The Richmond and Hornet portals.

More Counties	More Names	Activity	Contact	AnthroFeat	EarthFeat	HydroFeat
Commodity	Mine Status	Operations	Location	Foreign Keys	PAR	Save Record

Record: 14 263 of 352

Form View

Preliminary Appraisal and Ranking

## Preliminary Appraisal and Ranking System

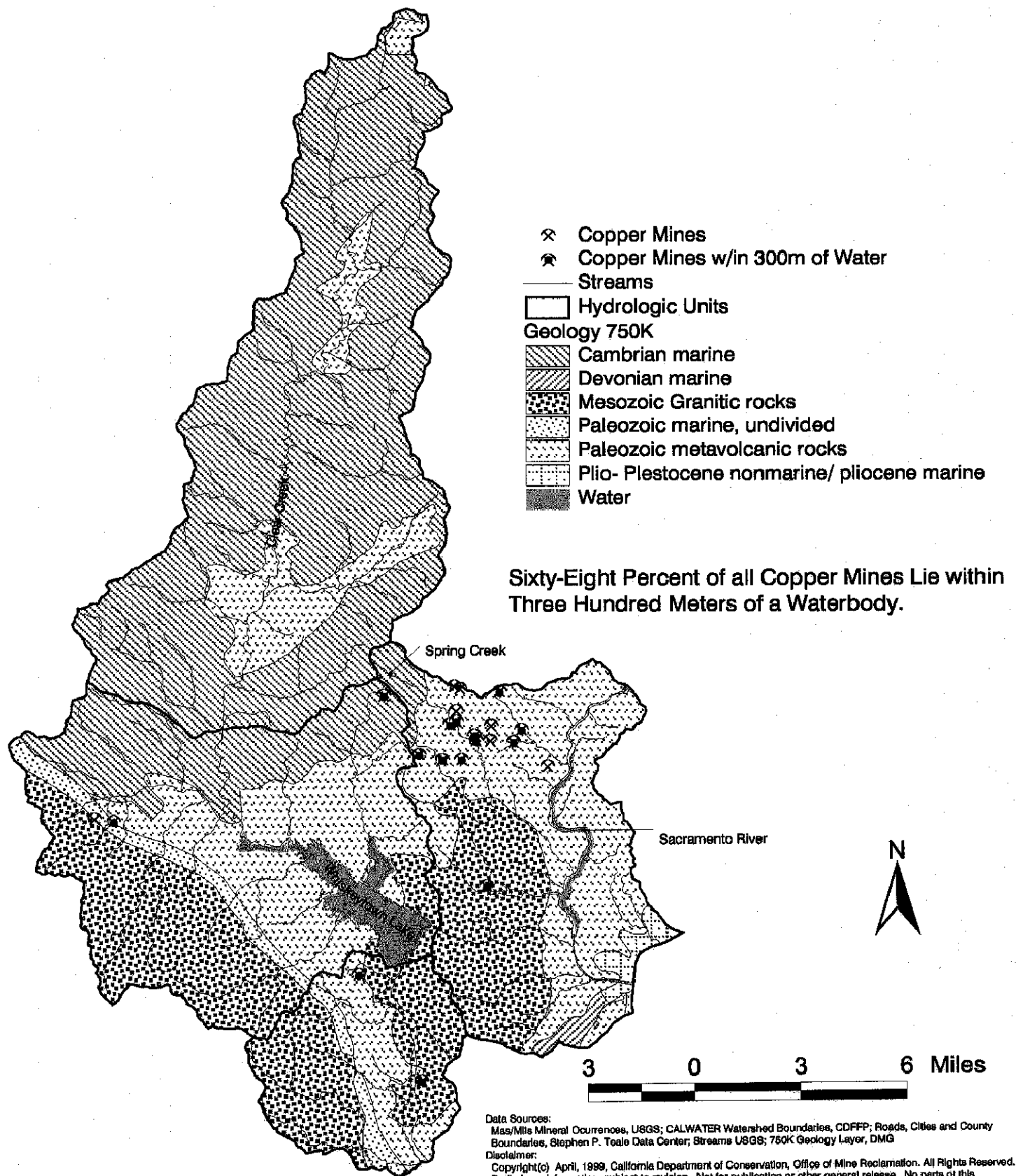
OMB No.	2520-01	Field Form	Condition	Frequency	Physical Appraisal Notes
Project Name	SWRCB	Physical Appraisal 1	4	10	
Record Date	11/3/1998	Physical Appraisal 2	4	3	
Physical Appraisal Subtotal	144	Physical Appraisal 3	4		
Physical Exposure Subtotal	26	Physical Appraisal 4	4		
Chemical Appraisal Subtotal	1290	Physical Appraisal 5	4	1	
Chemical Exposure Subtotal	26	Physical Appraisal 6	4	20	
PAR Score	1488	Chemical Appraisal 1	> 100,000		Chemical Appraisal Notes
Not Fielded Score	<input checked="" type="checkbox"/>	Chemical Appraisal 2	> 100,000		
		Chemical Appraisal 3	4	10	
		Chemical Appraisal 4	> 100,000		
		Stream Class		1	
		Chemical Appraisal 5	4	1	

How Accessed	Improved or Paved Road	ICLH	<input checked="" type="checkbox"/>	Surface Water Name	Spring Creek, Boulder Creek, Slickrock Creek
Entry Restriction	Gate	Explosives	<input type="checkbox"/>	Distance to Surface Water	0 - 499 ft
Access	Moderate	Hazardous Materials	<input type="checkbox"/>	Sedimentation	High
Population	LT 100K AND GE 10K	Cultural Significance	<input type="checkbox"/>	Surface Water pH	<= 5 OR >= 9
Land Use Current	Recreation/Open Space	Wildlife	<input type="checkbox"/>	Surface Water EC	>= 2000
Land Use Future	Recreation/Open Space	Habitat Disturbance	<input type="checkbox"/>	Surface Water Redox	<= -0.4 OR >= +0.8V
Water Use	Consumption	Aquatic Invertebrates	<input type="checkbox"/>	Ground Water Depth	0 - 50 ft
Sensitive Environments		Soil Texture	Medium	Ground Water Discharge Dist	0 - 499 ft
Veg. Undisturbed	76 - 100%	Surface Soil pH	<= 5 OR >= 9	Ground Water pH	<= 5 OR >= 9
Veg. Disturbed	6 - 25%	Surface Soil EC	>= 2000	Ground Water EC	>= 2000
Est. Total Acres	4400	Fracture Spacing	>= 5 ft	Ground Water Redox	<= -0.4 OR >= +0.8V
Est. Disturbed Acres	4400				
Commodity / Processing	Metallic / On-Site				

Calculate Save Record Update

Record: 14 1 of 1 (Filtered)

# Attachment 4: Sample Spatial Analysis: Copper Mines Within 300m of Waterbodies, Clear Creek and Spring Creek Watersheds



**DEPARTMENT OF CONSERVATION**

801 K Street, MS 09-06  
Sacramento, CA 95814  
TEL: (916) 323-9198  
FAX: (916) 322-4862  
E-MAIL: omrcal@consrv.ca.gov



October 26, 1998

Bill Walker  
Shasta County Planning  
701 Ocean Street, Room 102  
Redding, CA 96001

Dear Bill:

As proposed at the last Abandoned Mine Task Force Meeting, our staff will be beginning a screening-level field inventory of abandoned mines in Shasta County commencing in December. The purpose of this inventory is to accurately locate mine sites (using GPS), document features (such as adits and structures) utilizing digital imagery, and conduct a preliminary (non-intrusive) evaluation of the conditions present at each site.

The general statement about the new Abandoned Mine Lands Unit is enclosed. For the talk to your Board, I plan to largely cover the contents of this enclosure and provide a few maps of mine data for your County.

Because of limited funding, staff and time constraints, only a fraction of the mines known to exist in Shasta County can be inventoried at this stage of the project. For this reason we are only able to field inventory a limited number of mines in selected sample areas (watersheds) for study. We propose to inventory a selected number of abandoned mines located within the Clear Creek Watershed. As part of the agreement, any data we gather will be given to you at the completion of the inventory work. Data will be in a Microsoft Access database, linked to ArcView GIS.

Please let me know if you need any more information on the program. I look forward to seeing you on November 10th. I can be reached at (916) 323-8564 or via email at gnewton@consrv.ca.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "Gail A. Newton", with a long horizontal line extending to the right.

Gail A. Newton, Manager  
Abandoned Mine Lands Unit

Enclosure

# APPLICATION FOR FEDERAL ASSISTANCE

<b>1. TYPE OF SUBMISSION</b> <i>Application</i> <input type="checkbox"/> Construction <input checked="" type="checkbox"/> Non-Construction		<b>2. DATE SUBMITTED</b> April 14, 1999		Applicant Identifier
		<b>3. DATE RECEIVED BY STATE</b>		State Applicant Identifier
<b>4. DATE RECEIVED BY FEDERAL AGENCY</b>		Federal Identifier		

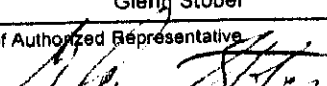
  

<b>5. APPLICANT INFORMATION</b>				
<b>Legal Name:</b> Department of Conservation		<b>Organizational Unit:</b> Office of Mine Reclamation		
<b>Address (give city, county, state, and zip code):</b>  Office of Mine Reclamation Sacramento, Sacramento, CA 95814		<b>Name and telephone number of person to be contacted on matters involving this application (give area code)</b> Technical: Gail Newton, (916) 323-8564 Budgetary: same, Contractual: same,		
<b>6. EMPLOYER IDENTIFICATION NUMBER (EIN):</b> <div style="border: 1px solid black; padding: 2px; display: inline-block;">           9 4 - 6 0 0 1 3 4 7         </div>		<b>7. TYPE OF APPLICANT: (enter appropriate letter in box)</b> <span style="border: 1px solid black; padding: 0 5px;">A</span>		
<b>8. TYPE OF APPLICATION:</b>  <input checked="" type="checkbox"/> New <input type="checkbox"/> Continuation <input type="checkbox"/> Revision  If Revision, enter appropriate letter(s) in box(es): <span style="border: 1px solid black; padding: 0 5px;"> </span> <span style="border: 1px solid black; padding: 0 5px;"> </span> A. Increase Award    B. Decrease Award    C. Increase Duration D. Decrease Duration    Other (specify): _____		A. State                      H. Independent School Dist. B. County                    I. State Controlled Institution of Higher Learning C. Municipal                J. Private University D. Township                K. Indian Tribe E. Interstate                L. Individual F. Intermunicipal           M. Profit Organization G. Special District        N. Other (Specify) _____		
<b>10. CATALOG OF FEDERAL DOMESTIC ASSISTANCE NUMBER:</b>  <div style="border: 1px solid black; padding: 5px; display: inline-block;"> <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> <span style="margin: 0 5px;">.</span> <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> </div>  TITLE: CALFED		<b>9. NAME OF FEDERAL AGENCY:</b>    <b>11. DESCRIPTIVE TITLE OF APPLICANT'S PROJECT:</b> Abandoned Mine Inventory, CALFED's Targeted Watersheds		
<b>12. AREAS AFFECTED BY PROJECT (cities, counties, states, etc.):</b>  California				

<b>13. PROPOSED PROJECT:</b>		<b>14. CONGRESSIONAL DISTRICTS OF:</b>	
Start Date	Ending Date	a. Applicant	b. Project
10/99	06/02	4	Statewide

<b>15. ESTIMATED FUNDING:</b>		<b>16. IS APPLICATION SUBJECT TO REVIEW BY STATE EXECUTIVE ORDER 12372 PROCESS?</b>  a. YES. THIS PREAPPLICATION/APPLICATION WAS MADE AVAILABLE TO THE STATE EXECUTIVE ORDER 12372 PROCESS FOR REVIEW ON:  DATE _____  b. NO. <input type="checkbox"/> PROGRAM IS NOT COVERED BY E.O. 12372 <input type="checkbox"/> OR PROGRAM HAS NOT BEEN SELECTED BY STATE FOR REVIEW
a. Federal	\$ 2,103,322.00	
b. Applicant	\$ .00	
c. State	\$ 617,000.00	
d. Local	\$ .00	
e. Other	\$ .00	
f. Program Income	\$ .00	
g. TOTAL		<b>17. IS THE APPLICANT DELINQUENT ON ANY FEDERAL DEBT?</b> <input type="checkbox"/> Yes    If "Yes," attach an explanation. <input checked="" type="checkbox"/> No
<b>18. TO THE BEST OF MY KNOWLEDGE AND BELIEF, ALL DATA IN THIS APPLICATION/PREAPPLICATION ARE TRUE AND CORRECT. THE DOCUMENT HAS BEEN DULY AUTHORIZED BY THE GOVERNING BODY OF THE APPLICANT AND THE APPLICANT WILL COMPLY WITH THE ATTACHED ASSURANCES IF THE ASSISTANCE IS AWARDED.</b>		
a. Typed Name of Authorized Representative Glenn Stober		b. Title Assistant Director
d. Signature of Authorized Representative 		c. Telephone number (916) 323-9198  e. Date Signed 4-14-99

# BUDGET INFORMATION - Non-Construction Programs

## SECTION A - BUDGET SUMMARY

Grant Program Function or Activity (a)	Catalog of Federal Domestic Assistance Number (b)	Estimated Unobligated Funds		New or Revised Budget		
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)	Total (g)
1. CALFED		\$	\$	\$2,103,332	\$	\$2,103,332
2. AMLU	N/A				\$617,000	\$617,000
3.						\$0
4.						\$0
5. TOTALS		\$0	\$0	\$2,103,332	\$617,000	\$2,720,332

## SECTION B - BUDGET CATEGORIES

6. OBJECT CLASS CATEGORIES	GRANT PROGRAM, FUNCTION OR ACTIVITY				Total (5)
	(1) CALFED	(2) AMLU	(3)	(4)	
a. Personnel	\$588,977	\$247,136	\$	\$	\$836,113
b. Fringe Benefits	\$194,363	\$81,555			\$275,918
c. Travel	\$176,650	\$27,955			\$204,605
d. Equipment	\$100,000	\$157,000			\$257,000
e. Supplies		\$27,000			\$27,000
f. Contractual	\$831,840				\$831,840
g. Construction					\$0
h. Other		\$12,906			\$12,906
i. Total Direct Charges (sum of 6a-6h)	\$1,891,830	\$553,552			\$2,445,382
j. Indirect Charges	\$211,502	\$63,448			\$274,950
k. TOTALS (sum of 6i and 6j)	\$2,103,332	\$617,000			\$2,720,332
7. PROGRAM INCOME	\$0	\$0	\$0	\$0	\$0



SECTION C - NON FEDERAL RESOURCES				
(a) Grant Program	(b) Applicant	(c) State	(d) Other sources	(e) TOTALS
8.	\$0	\$0	\$0	\$0
9. AMLU (CASH)		\$460,000		\$460,000
10. AMLU (IN-KIND)		\$157,000		\$157,000
11.				\$0
12. TOTALS (sum of lines 8 and 11)	\$0	\$617,000	\$0	\$617,000

SECTION D - FORECASTED CASH NEEDS					
	Total for 1st Year	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
13. Federal	\$450,211	\$47,642	\$60,588	\$100,321	\$241,660
14. NonFederal	\$188,750	\$52,500	\$52,500	\$52,500	\$31,250
15. TOTAL (sum of lines 13 and 14)	\$638,961	\$100,142	\$113,088	\$152,821	\$272,910

SECTION E - BUDGET ESTIMATES OF FEDERAL FUNDS NEEDED FOR BALANCE OF THE PROJECT				
(a) Grant Program	FUTURE FUNDING PERIODS (YEARS)			
	(b) First	(c) Second	(d) Third	(e) Fourth
16. CALFED	\$1,083,597	\$569,524		
17.				
18.				
19.				
20. TOTALS (sum of lines 16 - 19)	\$1,083,597	\$569,524	\$0	\$0

SECTION F - OTHER BUDGET INFORMATION	
21. Direct Charges: \$0	22. Indirect Charges \$211,502 FED: provisional on personnel expenses only at 27% \$0 Total Indirect Expense (45% MTDC - Predetermined)
23. Remarks	



## ASSURANCES—NON-CONSTRUCTION PROGRAMS

Public reporting burden for this collection of information is estimated to average 45 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0043), Washington, DC 20503.

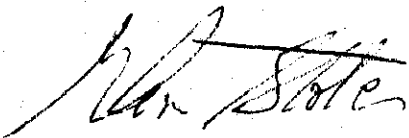
**PLEASE DO NOT RETURN YOUR COMPLETED FORM TO THE OFFICE OF MANAGEMENT AND BUDGET, SEND IT TO THE ADDRESS PROVIDED BY THE SPONSORING AGENCY.**

**Note:** Certain of these assurances may not be applicable to your project or program. If you have questions please contact the awarding agency. Further, certain Federal awarding agencies may require applicants to certify to additional assurances. If such is the case, you will be notified.

As the duly authorized representative of the applicant I certify that the applicant:

1. Has the legal authority to apply for Federal assistance, and the institutional, managerial and financial capability (including funds sufficient to pay the non-Federal share of project costs) to ensure proper planning, management and completion of the project described in this application.
2. Will give the awarding agency, the Comptroller General of the United States, and if appropriate, the State, through any authorized representative, access to and the right to examine all records, books, papers, or documents related to the award; and will establish a proper accounting system in accordance with generally accepted accounting standards or agency directives.
3. Will establish safeguards to prohibit employees from using their positions for a purpose that constitutes or presents the appearance of personal or organizational conflict of interest, or personal gain.
4. Will initiate and complete the work within the applicable time frame after receipt of approval of the awarding agency.
5. Will comply with the Intergovernmental Personnel Act of 1970 (42 U.S.C. §§ 4728-4763) relating to prescribed standards for merit systems for programs funded under one of the nineteen statutes or regulations specified in Appendix A of OPM's Standards for a Merit System of Personnel Administration (5 C.F.R. 900, Subpart F).
6. Will comply with all Federal statutes relating to nondiscrimination. These include but are not limited to: (a) Title VI of the Civil Rights Act of 1964 (P.L. 88-352) which prohibits discrimination on the basis of race, color or national origin; (b) Title IX of the Education Amendments of 1972, as amended (20 U.S.C. §§ 1681-1683, and 1685-1686), which prohibits discrimination on the basis of sex; (c) Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. § 794), which prohibits discrimination on the basis of handicaps; (d) the Age Discrimination Act of 1975, as amended (42 U.S.C. §§ 6101-6107), which prohibits discrimination on the basis of age; (e) the Drug Abuse Office and Treatment Act of 1972 (P.L. 92-255), as amended, relating to nondiscrimination on the basis of drug abuse; (f) the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970 (P.L. 91-616), as amended, relating to nondiscrimination on the basis of alcohol abuse or alcoholism; (g) §§ 523 and 527 of the Public Health Service Act of 1912 (42 U.S.C. 290 dd-3 and 290 ee-3), as amended, relating to confidentiality of alcohol and drug abuse patient records; (h) Title VIII of the Civil Rights Act of 1968 (42 U.S.C. § 3601 et seq.), as amended, relating to non-discrimination in the sale, rental or financing of housing; (i) any other nondiscrimination provisions in the specific statute(s) under which application for Federal assistance is being made; and (j) the requirements of any other nondiscrimination statute(s) which may apply to the application.
7. Will comply, or has already complied, with the requirements of Titles II and III of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (P.L. 91-646) which provide for fair and equitable treatment of persons displaced or whose property is acquired as a result of Federal or federally assisted programs. These requirements apply to all interests in real property acquired for project purposes regardless of Federal participation in purchases.
8. Will comply with the provisions of the Hatch Act (5 U.S.C. §§ 1501-1508 and 7324-7328) which limit the political activities of employees whose principal employment activities are funded in whole or in part with Federal funds.

9. Will comply, as applicable, with the provisions of the Davis-Bacon Act (40 U.S.C. §§ 276a to 276a7), the Copeland Act (40 U.S.C. § 276c and 18 U.S.C. §§ 874), and the Contract Work Hours and Safety Standards Act (40 U.S.C. §§ 327-33.3), regarding labor standards for federally assisted construction subagreements.
10. Will comply, if applicable, with flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973 (P.L. 93234) which requires recipients in a special flood hazard area to participate in the program and to purchase flood insurance if the total cost of insurable construction and acquisition is \$10,000 or more.
11. Will comply with environmental standards which may be prescribed pursuant to the following: (a) institution of environmental quality control measures under the National Environmental Policy Act of 1969 (P.L. 91-190) and Executive Order (EO) 11514; (b) notification of violating facilities pursuant to EO 11738; (c) protection of wetlands pursuant to EO 11990; (d) evaluation of flood hazards in floodplains in accordance with EO 11988; (e) assurance of project consistency with the approved State management program developed under the Coastal Zone Management Act of 1972 (16 U.S.C. §§ 1451 et seq.); (f) conformity of Federal actions to State (Clear Air) Implementation Plans under Section 176(c) of the Clear Air Act of 1955, as amended (42 U.S.C. § 7401 et seq.); (g) protection of underground sources of drinking water under the Safe Drinking Water Act of 1974, as amended, (P.L. 93-523); and (h) protection of endangered species under the Endangered Species Act of 1973, as amended, (P.L. 93-205).
12. Will comply with the Wild and Scenic Rivers Act of 1968 (16 U.S.C. §§ 1271 et seq.) related to protecting components or potential components of the national wild and scenic rivers system.
13. Will assist the awarding agency in assuring compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. 470), EO 11593 (identification and protection of historic properties), and the Archaeological and Historic Preservation Act of 1974 (16 U.S.C. 469a-1 et seq.).
14. Will comply with P.L. 93-348 regarding the protection of human subjects involved in research, development, and related activities supported by this award of assistance.
15. Will comply with the Laboratory Animal Welfare Act of 1966 (P.L. 89-544, as amended, 7 U.S.C. 2131 et seq.) pertaining to the care, handling, and treatment of warm blooded animals held for research, teaching, or other activities supported by this award of assistance.
16. Will comply with the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. §§ 4801 et seq.) which prohibits the use of lead based paint in construction or rehabilitation of residence structures.
17. Will cause to be performed the required financial and compliance audits in accordance with the Single Audit Act of 1984 or OMB Circular No. A-133, Audits of Institutions of Higher Learning and other Non-profit Institutions.
18. Will comply with all applicable requirements of all other Federal laws, executive orders, regulations and policies governing this program.

SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL  	TITLE  Assistant Director	
APPLICANT ORGANIZATION  Department of Conservation Office of Mine Reclamation		DATE SUBMITTED  April 14, 1999